

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director



Enter XX or Calendar Date

Mr. David Edmundson
Plant Manager
Burlington Industries
1001 Turnpike Road
Raeford, North Carolina 28376

SUBJECT: Air Quality Permit No. 00242T18
Facility ID: 4700001
Burlington Industries LLC – Raeford Plant
Raeford
Hoke County
Fee Class: Title V
PSD Class: Minor

Dear Mr. Edmundson:

In accordance with your completed Air Quality Permit Application for renewal of your Title V permit received May 25, 2018, we are forwarding herewith Air Quality Permit No. 00242T18 to Burlington Industries LLC – Raeford Plant, 1001 Turnpike Road, Raeford, North Carolina authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.



North Carolina Department of Environmental Quality | Division of Air Quality
217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641
919.707.8400

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Hoke County has not triggered increment tracking under PSD for any pollutants, so no tracking is required.

This Air Quality Permit shall be effective from (*Enter Permit Issuance Date*) until (*Enter Permit Expiration Date*), is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Eric Crump at (919) 707-8470 or Eric.Crump@ncdenr.gov.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Heather Ceron, EPA Region 4
Fayetteville Regional Office
Connie Horne (Cover Letter Only)
Central Files

ATTACHMENT to Permit No. 00242T18

Insignificant Activities under 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
I-202	Parts cleaner
I-500	Yarn and top dyeing
I-550	Wool, polywool, and top drying
I-600	Bulk storage tanks
I-AMU1 and I-AMU2	Two direct-fired air make-up heaters (4.0 million Btu per hour maximum heat input each)
I-AMU3	Direct-fired air make-up heater (4.7 million Btu per hour maximum heat input)
I-LO	Logo machine
I-FP (GACT ZZZZ)	Diesel-fired fire pump (255 Hp, 193 kW)
I-EG1 (GACT ZZZZ) and I-EG2 (GACT ZZZZ)	Two 4 stroke rich burn propane-fired emergency generators (161 Hp, 120 kW, each)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit."
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide." The link to this site is as follows:
<http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.

Summary of Changes to Permit

The following changes were made to the Burlington Industries LLC – Raeford Plant - Raeford, Air Permit No. 00242T17:

Page No.	Section	Description of Changes
Cover and throughout	--	<ul style="list-style-type: none"> • Updated all dates and permit revision numbers • Changed all references to “15A NCAC 2D” and “15A NCAC 2Q” to “15A NCAC 02D” and “15A NCAC 02Q”
11	2.1.B.5	Corrected typographical error in heading “ <u>ALTERNATIVE OPERATING SCENARIO – Unlimited-Use Boiler</u> ”
20	2.1 D	Removed 15A NCAC 02D .0958, Work Practices for Sources of Volatile Organic Compounds from summary table
21	2.1 E	Removed 15A NCAC 02D .0958, Work Practices for Sources of Volatile Organic Compounds from summary table
24	2.1.F	Included hazardous air pollutants in summary table
27	2.2 B	Removed 15A NCAC 02D .0958, Work Practices for Sources of Volatile Organic Compounds from permit
27-28	2.2 B.1	Section 2 (15A NCAC 02Q .0317: Avoidance Conditions for 15A NCAC 02D .1111: Maximum Achievable Control Technology) renumbered as Section 1
28	2.2 B.2	Section 3 (15A NCAC 02D .1100: Control of Toxic Air Pollutants) renumbered as Section 2
28-29	2.2 B.3	Section 4 (15A NCAC 02Q .0711: Toxic Air Pollutant Emissions Limitation Requirement) renumbered as Section 3
30-39	3	Updated General Conditions to version 5.3 dated August 21, 2018



AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
00242T18	00242T17	XXXX	XXXX

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **Burlington Industries LLC – Raeford Plant**

Facility ID: **4700001**

Facility Site Location: **1001 Turnpike Road**
City, County, State, Zip: **Raeford, Hoke County, North Carolina 28376**

Mailing Address: **1001 Turnpike Road**
City, State, Zip: **Raeford, North Carolina 28376**

Application Number: **4700001.18A**
Complete Application Date: **May 25, 2018**

Primary SIC Code: **2284**
Division of Air Quality: **Fayetteville Regional Office**
Regional Office Address: **Systel Building**
225 Green Street, Suite 714
Fayetteville, NC 28301-5094

Permit issued this the **XX** day of **XXXXXX**, 2018

William D. Willets, P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

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SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

SECTION 1 - PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Page Nos.	Emissions Source ID No.	Emissions Source Description	Control Device ID	Control Device Description
4 - 6	ESS1	Starch storage silo	CDBS1	Polyester felt fabric filter (260 square feet of filter area)
	ESS2	Polyvinyl alcohol storage silo	CDBS2	Polyester felt fabric filter (170 square feet of filter area)
	ESSH1	One shearer	CDSH1	Bagfilter (590 square feet of filter area)
	ESSH2	One shearer	CDSH2	Bagfilter (393 square feet of filter area)
7 -16, 27-28	ESB1 GACTION	Primary Operating Scenario Limited-use coal-fired boiler (44 million Btu per hour maximum heat input) Alternative Operating Scenario Coal-fired boiler (44 million Btu per hour maximum heat input)	CDMCB1	Multicyclone consisting of a primary and secondary chamber (25 nine-inch diameter tubes per chamber)
17-21, 27-28	ESB4 GACTION	Natural gas/No. 2 fuel oil/No. 2 (equivalent recycled) fuel oil/No. 5 fuel oil/No. 6 fuel oil/No. 4 (equivalent recycled) fuel oil-fired boiler (29.3 million Btu per hour maximum heat input)	NA	NA
	ESB5 GACTION	Natural gas/No. 2 fuel oil/No. 2 (equivalent recycled) fuel oil/No. 5 fuel oil/No. 6 fuel oil/No. 4 (equivalent recycled) fuel oil-fired boiler (53 million Btu per hour maximum heat input)	NA	NA
22, 27-28	ES206	Laboratory	NA	NA
	ES-INSP	Inspection – spot cleaning of fabric	NA	NA
22-25, 28-31	ESTF1	Direct natural gas/propane-fired tenter frame (9 million Btu per hour maximum heat input)	CDOX1	Natural gas/propane-fired thermal oxidizer (5.0 million Btu per hour maximum heat input)
	ESTF2	Direct natural gas/propane-fired tenter frame (9 million Btu per hour maximum heat input)	CDOX2	Natural gas/propane-fired thermal oxidizer (5.0 million Btu per hour maximum heat input)
	ESCD1	Carbonizer/dryer		
25-28	ESSN1	Direct natural gas/propane-fired singer (0.9 million Btu per hour maximum heat input)	CDSN1 and CDSN2	Cyclone (31.5 inches in diameter) and Spray chamber (4.84 gallons per hour minimum liquid injection rate) installed in series

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

- A. Starch storage silo (ID No. ESS1) with associated polyester felt fabric filter (ID No. CDBS1)
 Polyvinyl alcohol storage silo (ID No. ESS2) with associated polyester felt fabric filter (ID No. CDBS2)
 Two shearers (ID Nos. ESSH1 and ESSH2) with associated bagfilters (ID Nos. CDSH1 and CDSH2)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10 \times P^{0.67}$ (For process weights ≤ 30 tons/hr) $E = 55.0 \times P^{0.11} - 40$ (For process weights > 30 tons/hr) Where: E = allowable emissions in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ESS1, ESS2, ESSH1, and ESSH2**) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \text{ (For process weights up to 30 tons per hour)}$$

$$E = 55.0 \times P^{0.11} - 40 \text{ (For process weights greater than 30 tons per hour)}$$

Where: E = allowable emissions in pounds per hour
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources (**ID Nos. ESS1, ESS2, ESSH1, and ESSH2**) shall be controlled by four bagfilters (**ID Nos. CDBS1, CDBS2, CDSH1, and CDSH2**) as described above. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer’s inspection and maintenance recommendations, or if there are no manufacturer’s inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. a monthly visual inspection of the system ductwork and material collection units for leaks, and
- ii. an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters’ structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on any control device; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

- e. The monitoring and recordkeeping requirements in Sections 2.1 A.1.c and d above apply for bagfilters (**ID Nos. CDSH1 and CDSH2**) only when the exhaust from the bagfilters are vented to the atmosphere and apply for bagfilters (**ID Nos. CDBS1 and CDBS2**) only during the months the silos (**ID Nos. ESS1 and ESS2**) are used for storage.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
- g. If any monitoring or recordkeeping is required during the preceding six month period, the Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID No. ESS1, ESS2, ESSH1, and ESSH2**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To assure compliance, the Permittee shall observe the emission points of these sources (**ID Nos. ESS1 and ESS2**) during each loading for any visible emissions above normal. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.2.a above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

- d. To assure compliance, once a month following the venting of the bagfilters' exhaust to the atmosphere, the Permittee shall observe the emission points of these sources (**ID Nos. ESSH1 and ESSH2**) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following the venting of the bagfilters' exhaust to the atmosphere. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the

monitoring period and record the action taken as provided in the recordkeeping requirements below, or

- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.2.a above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. If visible observations are required in Section 2.1 A.2.c. or d above, the Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

B. Coal-fired boiler (ID No. ESB1) with associated multicyclone (ID No. CDMCB1)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 1.090(Q)^{-0.2594}$ Where: E = allowable emissions in lbs/million Btu Q = maximum heat input in million Btu/hr	15A NCAC 02D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Hazardous air pollutants	<p>Primary Operating Scenario Operation limited to an average annual capacity factor of no more than 10 percent and work practice standards</p> <p>Alternative Operating Scenario Emission Limits</p> <ul style="list-style-type: none"> • Mercury: 2.2E-05 lb per million Btu of heat input • Carbon monoxide: 420 ppm by volume on a dry basis corrected to 3 percent oxygen Work practice standards	15A NCAC 02D .1111, 40 CFR Part 63, Subpart JJJJJ
Sulfur dioxide	See Multiple Emission Sources Section 2.2 A	15A NCAC 02Q .0317 (PSD Avoidance)
Hazardous air pollutants	See Multiple Emission Sources Section 2.2 B.2	15A NCAC 02Q .0317 (MACT Avoidance)

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of coal that are discharged from this boiler (**ID No. ESB1**) into the atmosphere shall not exceed 0.31 pounds per million Btu heat input as calculated according to the following equation:

$$E = 1.090(Q)^{-0.2594}$$

Where: E = allowable emissions in pounds per million Btu's

Q = maximum heat input in million Btu's per hour

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.
- c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limit above by testing the source (**ID No. ESB1**) for particulate matter in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in Section 3 – General Condition JJ. Testing shall be completed and the results submitted by **the expiration date of this permit** unless an alternative date is approved by the DAQ. If the results of this test are above the limit given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- d. Particulate matter emissions from this boiler (**ID No. ESB1**) shall be controlled by one multicyclone (**ID No. CDMCB1**). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include, the following:
- i. a monthly external visual inspection of the system ductwork, and material collection unit for leaks for each month that the coal-fired boiler operated any time during in the previous 30 days period;
 - ii. an annual (for each 12 month period from initial inspection that the boiler operated any time during the previous 180 day period and may operate during the next 180 day period) internal inspection of the multicyclone's structural integrity; and
 - iii. an internal inspection of the multicyclone's structural integrity within 180 days of resuming operations after any boiler shutdown lasting 180 days or longer.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503 if the multicyclone and ductwork are not inspected and maintained.
- e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the date of the boiler shutdown and startup for each boiler shutdown lasting 30 days or longer;
 - iii. a report of any maintenance performed on any control device; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.

- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from this boiler (**ID No. ESB1**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The maximum sulfur content of any coal received and burned in this boiler (**ID No. ESB1**) shall not exceed 1.5 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the sulfur content of the coal exceeds this limit.
- d. To assure compliance, the Permittee shall monitor the sulfur content of the coal by using coal supplier certifications per total shipment received. The coal supplier certification shall be recorded in a logbook (written or electronic format) per total shipment and include the following information:
 - i. the name of the coal supplier;
 - ii. the maximum sulfur content of the coal received per total shipment;
 - iii. a statement verifying that the methods used to determine the maximum sulfur content of the coal was in accordance with the following:
 - A. sampling – ASTM Method D 2234;
 - B. preparation – ASTM Method D 2013;
 - C. gross calorific value (Btu) – ASTM Method D 5865;
 - D. moisture content – ASTM Method D 3302 or D 3173; and
 - E. sulfur content – ASTM Method D 3177 or ASTM Method D 4239.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the sulfur content of the coal is not monitored and recorded.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the coal supplier certifications postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain a certified statement signed by the responsible official that the records of coal supplier certification submitted represent all of the coal fired during the reporting period. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this boiler (**ID No. ESB1**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent no more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To assure compliance, once a day the Permittee shall observe the emission points of this boiler (**ID No. ESB1**) for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three days of absent observations per semi-annual period. If visible emissions from this boiler are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.3.a above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

PRIMARY OPERATING SCENARIO – Limited-Use Boiler

4. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

- a. For the coal-fired boiler (**ID No. ESB1**) the Permittee shall comply with all applicable provisions, including the notification, testing, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111, “Maximum Achievable Control Technology” as promulgated in 40 CFR 63, Subpart JJJJJ, “National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers,” including Subpart A “General Provisions.”

Operational Limit

- b. The Permittee shall operate the boiler such that it meets the definition of a limited use boiler with an average annual capacity factor of no more than 10 percent, which is 30,660,000 pounds of steam flow per year. Upon producing more than 30,660,000 pounds of steam in any consecutive 12-month period from the coal-fired boiler, the Permittee shall comply with each of the alternative operating scenario requirements listed in Section 2.1.B.5 or be deemed in non-compliance with 15A NCAC 02D .1111.

Work Practices for Limited-Use Boilers [15A NCAC 02Q .0508(f)]

- c. No later than **March 21, 2014**, the Permittee shall achieve compliance with the work practice standard of a tune-up.
- d. The Permittee shall operate and maintain the boiler in a manner consistent with safety and good air pollution control practices for minimizing emissions.
- e. The Permittee shall conduct an initial tune-up, followed by a tune-up once every five years. Each five-year tune-up shall be performed no more than 61 months after the previous tune-up, except the burner and

the air-to-fuel ratio control system inspections specified in 2.1.B.4.e.i and iii below may be delayed until the next scheduled unit shutdown provided these inspections are performed at least once every 72 months. During each boiler tune-up, the Permittee shall include the following:

- i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled unit shutdown, but must inspect each burner at least once every 72 months).
- ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
- iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly.
- iv. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available.
- v. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made).
- vi. Maintain onsite a five-year report (see Section 2.1.B.4.f.ii. below) containing:
 - A. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured before and after the tune-up of the boiler.
 - B. A description of any corrective actions taken as a part of the tune-up of the boiler.
- vii. If the boiler is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the initial or any required five-year boiler tune-up is not performed as required.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- f. The Permittee shall keep monthly records in a logbook (written or electronic format) of the pounds of steam produced by the boiler each month and the total pounds of steam produced each consecutive 12-month period. Each record shall be maintained for a period of five years during which time the records shall be kept onsite for at least the first two years, and made available to DAQ personnel upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if records of the steam production are not created and retained as required above.

Recordkeeping [15A NCAC 02Q .0508(f)]

- g. The Permittee shall maintain the following records as defined under 40 CFR 63.11225(c):
 - i. Copies of all required notifications.
 - ii. Records documenting conformance with the work practice to conduct an initial tune-up followed by a tune-up every five years. The tune-up records shall identify the boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.
 - iii. Records documenting fuel use for the days the boiler is operating and a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.
- h. In addition to any other recordkeeping requirements of the EPA, the Permittee shall maintain the records identified in 40 CFR 63.11225(c). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these recordkeeping requirements are not met.
- i. Each record shall be maintained for a period of five years during which time the records shall be kept onsite for at least the first two years, and made available to DAQ personnel upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- j. In addition to the notification and reporting requirements of the Environmental Protection Agency (EPA), the Permittee is required to NOTIFY the Regional Supervisor, DAQ, in WRITING, of the following:

- i. Notification of Compliance Status (40 CFR 63.11225(a)(4)) is required no later than 120 days after the applicable compliance date specified in 40 CFR 63.11196. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs 40 CFR 63.11225(a)(4)(i) through (v), as applicable, and must be signed by a responsible official.
- ii. Five-Year Compliance Report (40 CFR 63.11225(b)) A compliance certification report must be submitted every 5-years. The compliance certification report must contain the information specified in paragraphs 40 CFR 63.11225(b)(1) through (2) and must be submitted upon request. The report must be submitted by March 15 if the Permittee had any instance described by paragraph (b)(3) of §63.11225.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these notification and reporting requirements are not met.

- k. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain each 12-month total steam production from the boiler for each of the 12-month periods over the previous 17 months.

ALTERNATIVE OPERATING SCENARIO – Unlimited-Use Boiler

5. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

For the coal-fired boiler (**ID No. ESB1**), the Permittee shall comply with all applicable provisions, including the notification, testing, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111, Maximum Achievable Control Technology” as promulgated in 40 CFR 63, Subpart JJJJJ, “National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers,” including Subpart A “General Provisions.”

Compliance Dates (40 CFR 63.11210(d) and 40 CFR 63.11196(a)(2))

- a. Within 30 days of producing more than 30,660,000 pounds of steam in any consecutive 12-month period from the boiler, the Permittee shall submit a notification that the boiler will operate under the alternative operating scenario as an unlimited-use boiler.
- b. Within 180 days of producing more than 30,660,000 pounds of steam in any consecutive 12-month period from the boiler, the Permittee shall achieve compliance with emission limits for mercury and carbon monoxide (CO) as specified in 40 CFR 63.11196(a)(2) and Specific Conditions 2.1-B.5.e. through 2.1-B.5.g. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if compliance with the mercury and CO emission limits is not demonstrated by the compliance date.

Compliance Requirements [40 CFR 63.11201, 63.11205, and Tables 1, 2, and 3]

- c. The Permittee has achieved compliance with the one-time energy assessment requirement as specified in 40 CFR 63.11196(a)(3).
- d. As required by 15A NCAC 02D .1111, the Permittee shall comply with the following requirements:
 - i. General Duty Clause (40 CFR 63.11205(a)) – At all times the Permittee shall operate and maintain the boiler, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
 - ii. Emission Limits – The Permittee shall comply with the following emission standards for boiler (**ID No. ESB1**) [Table 1 of 40 CFR 63 Subpart JJJJJ]:

Emission Source	Pollutant	Emission Limit
ID No. ESB1	Mercury	2.2E-05 lb per million Btu of heat input
	Carbon monoxide (CO)	420 ppm by volume on a dry basis corrected to 3 percent oxygen

iii. The emission limits in Section 2.1 B.5.d.ii above shall apply at all times the boiler is in operation except during periods of startup and shutdown as defined under 40 CFR 63.11237. The Permittee shall follow procedures under Section 2.1 B.5.t during periods of startup and shutdown. [40 CFR 63.11201(d) and Table 2]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Initial Testing [15A NCAC 02Q .0508(f)]

- e. The Permittee shall demonstrate compliance with the CO emissions limit specified in Section 2.1 B.5.d.ii above by conducting an initial performance (stack) test according to 40 CFR 63.7(a)(2), 40 CFR 63.11212, Table 4 of Subpart JJJJJ, and General Condition JJ within 180 days of producing more than 30,660,000 pounds of steam in any consecutive 12-month period from the boiler. During each performance stack test, the Permittee shall establish operating limits according to 40 CFR 63.11211(b)(1) through (4), 40 CFR 63.11222, and Table 6 of Subpart JJJJJ.
- f. The Permittee shall demonstrate compliance with the mercury emissions limit specified in 2.1 B.5.d.ii above within 180 days of producing more than 30,660,000 pounds of steam in any consecutive 12-month period from the boiler by analyzing the boiler fuel according to 40 CFR 63.11213 and Table 5 of Subpart JJJJJ.
- g. If the initial stack test and/or boiler fuel analysis show emissions above the limit(s) in Section 2.1 B.5.d.ii above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.

Periodic Testing [15A NCAC 02Q .0508(f)]

- h. The Permittee shall conduct a performance (stack) test to determine CO emissions according to 40 CFR 63.11212 on a triennial basis. Each triennial performance test must be completed no more than 37 after the previous performance test.
- i. The Permittee shall conduct a fuel analysis according to 40 CFR 63.11213 for each type of fuel burned to determine mercury emissions as specified in paragraphs (i) and (ii) below:
 - i. If the mercury constituents in the fuel or fuel mixture are measured to be equal to or less than half of the mercury emission limit, the Permittee does not need to conduct further fuel analysis sampling but must continue to comply with all applicable operating limits and monitoring requirements.
 - ii. If the mercury constituents in the fuel or fuel mixture are greater than half of the mercury emission limit, the Permittee shall conduct quarterly sampling.
- j. If the Permittee plans to burn a new type of fuel or fuel mixture, the Permittee shall conduct a fuel analysis before burning the new type of fuel or mixture in the boiler. The Permittee shall recalculate the mercury emission rate using Equation 1 of 40 CFR 63.11211. The recalculated mercury emission rate must be less than the applicable emission limit.
- k. If the results of the periodic performance tests are above the limit given in Section 2.1 B.5.d.ii above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.

Operating Limits

- l. The Permittee shall only burn fuel for which compliance with the mercury emission limit in Section 2.1 B.5.d.ii above has been demonstrated through stack testing and/or fuel analysis.
- m. The Permittee shall maintain the 30-day rolling average boiler operating load at or below the operating limit established during the performance test according to 40 CFR 63.11212(c) and Table 6 to Subpart JJJJJJ.
- n. The Permittee shall maintain the 30-day rolling average O₂ content at or above the minimum O₂ level established during the most recent CO performance test.

Monitoring [15A NCAC 02Q .0508(f)]

- o. The Permittee shall maintain monthly records of fuel use according to 40 CFR 63.11222(a)(2) and 40 CFR 63.11225(b)(4). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if a fuel is used, except during startup, after the initial compliance period for which the Permittee has not demonstrated compliance with the emission limits in Section 2.1 B.5.d.ii above.
- p. The Permittee shall collect operating load data (fuel feed rate or steam generation data) every 15 minutes and reduce the data to 30-day rolling averages. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the boiler operating load exceeds 110 percent of the average operating load recorded during the most recent stack test.
- q. The Permittee shall install, operate, and maintain a continuous oxygen monitor according to the procedures in 40 CFR 63.11224(a)(1) through (6) within 30 days of producing more than 30,660,000 pounds of steam in any consecutive 12-month period from the boiler. The Permittee shall continuously monitor the O₂ content of flue gas at the outlet of the boiler according to 40 CFR 63.11224 and reduce the data to 30-day rolling averages. This requirement does not apply to units that install an O₂ trim system since these units will set the trim system to the level specified in 40 CFR 63.11224(a)(7). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the 30-day rolling average O₂ content is not maintain at or above the minimum O₂ level established during the most recent CO performance test..
- r. The Permittee shall develop a site-specific monitoring plan according to the requirements in 40 CFR 63.11224(c)(1) through (4) of Subpart JJJJJJ.
- s. If the Permittee has an operating limit that requires the use of a continuous monitoring system (CMS), the Permittee shall install, operate, and maintain each continuous parameter monitoring system according to the procedures in 40 CFR 63.11224(d)(1) through (5).
- t. The Permittee shall minimize the boiler's time spent during startup and shutdown following the manufacturer's recommended procedures, if available. If manufacturer's recommended procedures are not available, the Permittee shall follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. [40 CFR 63.11214(d) and 40 CFR 63.11223(g)]

Recordkeeping Requirements [40 CFR 63.11225(c)(1) through (7)]

- u. The Permittee shall maintain the following records as specified in 40 CFR 63.11225(c)(1) through (7):
 - i. A copy of each notification and report that was submitted to comply with Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that the Permittee submitted.
 - ii. Records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR 63.11214 and 40 CFR 63.11223 as specified in paragraphs (A) through (D) below:
 - A. For each boiler required to conduct an energy assessment, the Permittee must keep a copy

of the energy assessment report.

- B. For each boiler subject to an emission limit in Table 1 to Subpart JJJJJ, the Permittee must also keep records of monthly fuel use by each boiler, including the type(s) of fuel and amount(s) used.
 - i. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation that were done to demonstrate compliance with the mercury emission limits. Supporting documentation should include results of any fuel analyses. The Permittee can use the results from one fuel analysis for multiple boilers provided they are all burning the same fuel type.
 - ii. Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.
 - iii. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.
 - iv. The Permittee must keep the records of all inspection and monitoring data required by 40 CFR 63.11221 and 63.11222, and the information identified in paragraphs (A) through (F) below for each required inspection or monitoring.
 - A. The date, place, and time of the monitoring event.
 - B. Person conducting the monitoring.
 - C. Technique or method used.
 - D. Operating conditions during the activity.
 - E. Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation.
 - F. Maintenance or corrective action taken (if applicable).
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not maintained.

Reporting Requirements [40 CFR 63.11225]

- v. In addition to the notification and reporting requirements of the Environmental Protection Agency (EPA), the Permittee is required to NOTIFY the Regional Supervisor, DAQ, in WRITING, of the following notifications as specified in 40 CFR 63.11225(a)(1) through (a)(4):
 - i. All of the notifications in 40 CFR 63.7(b), 63.8(e) and (f), 40 CFR 63.9(b) through (e), and 40 CFR 63.9(g) and (h) that apply to the facility by the dates specified in those sections.
 - ii. Initial Notification within 30 days of producing more than 30,660,000 pounds of steam in any consecutive 12-month period from the boiler.
 - iii. Notification of Intent to conduct a performance test at least 60 days before the performance stack test is scheduled to begin.
 - iv. Notification of Compliance Status in accordance with 40 CFR 63.9(h) no later than 120 days after the applicable compliance date specified in 40 CFR 63.11196 unless the Permitted must conduct a performance stack test. If the Permittee must conduct a performance stack test, the Permittee must submit the Notification of Compliance Status within 60 days of completing the performance stack test. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs 40 CFR 63.11225(a)(4)(i) through (v), as applicable, and must be signed by a responsible official. In addition, the Notification of Compliance Status must contain the following:
 - A. Per 40 CFR 63.11214 (c), the Permittee shall submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 of Subpart JJJJJ and is an accurate depiction of the facility.
 - B. Per 40 CFR 63.11214 (d), the Permittee shall submit a signed statement in the

Notification of Compliance Status report that the Permittee conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these notification and reporting requirements are not met.

- w. Annual Compliance Certification Report (40 CFR 63.11225(b)) – The Permittee shall prepare and submit, by March 1 of each year, an annual compliance certification report for the previous calendar year. The report shall contain the following information as specified in paragraphs 40 CFR 63.11225(b)(1) through (4). The report must be submitted by March 15 if the Permittee had any instance described by paragraph (b)(3) of 40 CFR 63.11225.
- i. Company name and address.
 - ii. Statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart.
 - iii. If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.
 - iv. The total fuel use by each affected boiler subject to an emission limit, for each calendar month within the reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these notification and reporting requirements are not met.

- x. The Permittee shall report each instance in which the Permittee did not meet each applicable emission limit and operating limit in Tables 1 and 3 of Subpart JJJJJJ. These instances are deviations from the emission limits in Subpart JJJJJJ and must be reported according to the requirements in 40 CFR 63.11225 and as specified in Section 2.1 B.5.v above.
- y. In accordance with 15A NCAC 02Q .0508(f), the Permittee shall submit a summary report of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

C. Two natural gas/No. 2 fuel oil/No. 2 (equivalent recycled) fuel oil/No. 5 fuel oil/No. 6 fuel oil/No. 4 (equivalent recycled) fuel oil-fired boilers (ID Nos. ESB4 and ESB5)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 1.090(Q)^{-0.2594}$ Where: E = allowable emissions in lbs/million Btu Q = maximum heat input in million Btu/hr	15A NCAC 02D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Hazardous air pollutants	<u>Primary Operating Scenario</u> Work practices for operation as a oil-fired boiler	15A NCAC 02D .1111 (40 CFR 63, Subpart JJJJJ)
	<u>Alternative Operating Scenario</u> Operate as a gas-fired boiler	15A NCAC 02Q .0317 Avoidance of Subpart JJJJJ
Sulfur dioxide	See Multiple Emission Sources Section 2.2 A	15A NCAC 02Q .0317 (PSD Avoidance)

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas/No. 2 fuel oil/No. 2 (equivalent recycled) fuel oil/No. 5 fuel oil/No. 6 fuel oil/No. 4 (equivalent recycled) fuel oil that are discharged from these sources (**ID Nos. ESB4 and ESB5**) into the atmosphere shall not exceed 0.31 pounds per million Btu heat input as calculated according to the following equation:

$$E = 1.090(Q)^{-0.2594}$$

Where: E = allowable emissions in pounds per million Btu's
 Q = maximum heat input in million Btu's per hour

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas/No. 2 fuel oil/No. 2 (equivalent recycled) fuel oil/No. 5 fuel oil/No. 6 fuel oil/No. 4 (equivalent recycled) fuel oil in these sources (**ID Nos. ESB4 and ESB5**).

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ESB4 and ESB5**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping is required for sulfur dioxide emissions from the firing of natural gas/No. 2 fuel oil/No. 2 (equivalent recycled) fuel oil in these sources (**ID Nos. ESB4 and ESB5**).
- d. The maximum sulfur content of any No. 5 fuel oil/No. 6 fuel oil/No. 4 (equivalent recycled) fuel oil received and burned in these sources (**ID Nos. ESB4 and ESB5**) shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the sulfur content of the fuel oil exceeds this limit.
- e. To assure compliance, the Permittee shall monitor the sulfur content of the No. 5 fuel oil/No. 6 fuel oil/No. 4 (equivalent recycled) fuel oil by using fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a quarterly basis and include the following information:
 - i. the name of the fuel oil supplier;
 - ii. the maximum sulfur content of the fuel oil received during the quarter;
 - iii. the method used to determine the maximum sulfur content of the fuel oil; and
 - iii. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the No. 5 fuel oil/No. 6 fuel oil/No. 4 (equivalent recycled) fuel oil fired during the period.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the sulfur content of the fuel oil is not monitored and recorded.

Reporting [15A NCAC 02Q .0508(f)]

- f. No reporting is required for sulfur dioxide emissions from the firing of natural gas/No. 2 fuel oil/No. 2 (equivalent recycled) fuel oil in these sources (**ID Nos. ESB4 and ESB5**).
- g. The Permittee shall submit a summary report of the fuel oil supplier certifications postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ESB4 and ESB5**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping is required for visible emissions from the firing of natural gas/No. 2 fuel oil/No. 2 (equivalent recycled) fuel oil in these sources (**ID Nos. ESB4 and ESB5**).
- d. To assure compliance, once a day the Permittee shall observe the emission points of these sources (**ID Nos. ESB4 and ESB5**) while combusting No. 5 fuel oil/No. 6 fuel oil/No. 4 (equivalent recycled) fuel oil for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three days of absent observations per semi-annual period. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance

with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 C.3.a above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. No reporting is required for visible emissions from the firing of natural gas/No. 2 fuel oil/No. 2 (equivalent recycled) fuel oil in these sources (**ID Nos. ESB4 and ESB5**).
- g. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

PRIMARY OPERATING SCENARIO: "Existing Fuel Oil-Fired Boilers"

2. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

For these sources (**ID Nos. ESB4 and ESB5**), the Permittee shall comply with all applicable provisions, including the notification, testing, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111, "Maximum Achievable Control Technology" as promulgated in 40 CFR 63, Subpart JJJJJ, "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers", including Subpart A "General Provisions."

Compliance Dates (40 CFR 63.11196)

- a. The Permittee shall achieve compliance with the tune-up management practice standard no later than **March 21, 2014** as specified in 40 CFR 63.11196(a)(1) and achieve compliance with the energy assessment requirement no later than **March 21, 2014** as specified in 40 CFR 63.11196(a)(3). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these compliance dates are not met.

Compliance Requirements

- b. As required by 15A NCAC 02D .1111, the Permittee shall comply with the following requirements:
 - i. General Duty Clause (40 CFR 63.11205(a)) – At all times the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
 - ii. Boiler Tune-up (40 CFR 63.11223)
 - A. The Permittee must conduct performance tune-ups according to 40 CFR 63.11223(b) and keep records as required in §63.11225(c) to demonstrate continuous compliance.
 - B. To demonstrate continuous compliance following the initial boiler tune-up, biennial tune-ups shall be conducted no more than 25 months after the previous tune-up. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within thirty days of startup. The tune-up shall be conducted as required in 40 CFR 63.11223(b)(1) through (7).
 - C. Boilers with an oxygen trim system that maintain an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up must conduct a tune-up of the boiler every 5 years as specified in 40 CFR 63.11223(b)(1) through (7). Each 5-year tune-up must be

- conducted no more than 61 months after the previous tune-up. The Permittee may delay the burner inspection specified in 40 CFR 63.11223(b)(1) and inspection of the system controlling the air-to-fuel ratio specified in 40 CFR 63.11223(b)(3) until the next scheduled unit shutdown, but the Permittee must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.
- iii. Energy Assessment (40 CFR 63.11201(b))
- A. A one-time initial energy assessment is required by the date specified in 40 CFR 63.11196(a)(3). The energy assessment must include the conditions identified in Table 2 of Subpart JJJJJ.
 - B. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in Table 2 of Subpart JJJJJ satisfies the energy assessment requirement.
 - C. A facility that operates under an energy management program established through energy management systems compatible with ISO 50001, which includes the affected units, also satisfies the energy assessment requirement.
 - D. The energy assessment must be performed by a qualified energy assessor. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Notification and Reporting Requirements

- c. In addition to the notification and reporting requirements of the Environmental Protection Agency (EPA), the Permittee is required to NOTIFY the Regional Supervisor, DAQ, in WRITING, of the following:
- i. Initial Notification (40 CFR 63.11225(a)(2)) is required no later than January 20, 2014 or within 120 days after the source becomes subject to the standard.
 - ii. Notification of Compliance Status (40 CFR 63.11225(a)(4)) is required no later than 120 days after the applicable compliance date specified in 40 CFR 63.11196. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs 40 CFR 63.11225(a)(4)(i) through (v), as applicable, and must be signed by a responsible official.
 - iii. Biennial or 5-year Compliance Report (40 CFR 63.11225(b)) A compliance certification report must be prepared by March 1 every other year or every 5-years, as applicable, starting **March 1, 2015**. The compliance certification report must contain the information specified in paragraphs 40 CFR 63.11225(b)(1) through (4) and must be submitted upon request. The report must be submitted by March 15 if the Permittee had any instance described by paragraph (b)(3) of §63.11225. For boilers that are subject only to a requirement to conduct a biennial or 5-year tune-up according to §63.11223(a) and not subject to emission limits or operating limits, the Permittee may prepare only a biennial or 5-year compliance report as specified in paragraphs (b)(1) and (2) of §63.11225.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these notification and reporting requirements are not met.

Recordkeeping Requirements

- d. In addition to any other recordkeeping requirements of the EPA, the Permittee shall maintain the records identified in 40 CFR 63.11225(c). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these recordkeeping requirements are not met.

ALTERNATIVE OPERATING SCENARIO: "Existing Gas-Fired Boilers"

5. 15A NCAC 02Q .0317 AVOIDANCE CONDITION for

40 CFR 63 Subpart JJJJJ "Industrial, Commercial, and Institutional Boilers Area Sources".

- a. The Permittee shall operate existing natural gas/ No. 2 fuel oil/No. 2 (equivalent recycled) fuel oil/No. 5 fuel oil/No. 6 fuel oil/No. 4 (equivalent recycled) fuel oil-fired boilers (**ID Nos. ESB4 and ESB5**) as

units meeting the definition of a “gas-fired boiler” listed in §63.11237 and avoid, in accordance with §63.11195(e), the Subpart JJJJJ requirements specified in Section 2.1 C.4 above. To obtain and maintain the exemption from Subpart JJJJJ, the Permittee shall:

- iii. Submit a Notification of Fuel Subcategory Switching, as specified in §63.11225(g), within 30 days of switching fuels to gaseous fuels. The notification shall contain:
 - (A) The name of the owner or operator of the affected source,
 - (B) The location of the source,
 - (C) The boiler(s) that have switched fuels,
 - (D) The date of the notice, and
 - (E) The date of the fuel switch.
- iv. Limit the firing of liquid fuel in the boiler to periods of gas curtailment, gas supply interruptions, startups, and periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year per boiler.
- v. Maintain records that document the time periods when liquid fuel is fired and the reasons the liquid fuel is fired.
- vi. Maintain all notifications and records for a period of five years during which time the records shall be kept onsite for at least the first two years, and made available to DAQ personnel upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02Q .0317 if these records are not maintained.
- b. If the Permittee fires liquid fuel in the boiler for reasons other than gas curtailment, gas supply interruptions, startups, or for periodic testing on liquid fuel, the boiler is no longer qualifies as a gas-fired unit. Following the fuel switch from gaseous to liquid fuel, the Permittee shall:
 - i. Submit a Notification of Fuel Subcategory Switching, as specified in §63.11225(g), within 30 days of switching from liquid to gaseous fuels. The notification shall contain:
 - (A) The name of the owner or operator of the affected source,
 - (B) The location of the source,
 - (C) The boiler(s) that have switched fuels,
 - (D) The date of the notice, and
 - (E) The date of the fuel switch.
 - ii. Demonstrate compliance with the Subpart JJJJJ requirements for existing oil-fired boilers, listed in Section 2.1 C.4 above, within 180 days of the effective date of the fuel switch.

D. Laboratory (ID No. ES206)

Inspection – spot cleaning of fabric (ID No. ES-INSP)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous air pollutants	See Multiple Emission Sources Section 2.2 B.2	15A NCAC 02Q .0317 (MACT Avoidance)
Toxic air pollutants	State enforceable only - See Multiple Emission Sources Section 2.2 B.4	15A NCAC 02Q .0711

E. Two direct natural gas/propane-fired tenter frames (ID Nos. ESTF1 and ESTF2) with associated thermal oxidizers (ID Nos. CDOX1 and CDOX2); and Carbonizer/dryer (ID No. ESCD1) with associated thermal oxidizer (ID No. CDOX2)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulations
Particulate matter	$E = 4.10 \times P^{0.67}$ (For process weights ≤ 30 tons/hr) Where: E = allowable emissions in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Sulfur dioxide	See Multiple Emission Sources Section 2.2 A	15A NCAC 02Q .0317 (PSD Avoidance)
Hazardous air pollutants	See Multiple Emission Sources Section 2.2 B.2	15A NCAC 02Q .0317 (MACT Avoidance)
Toxic air pollutants	State enforceable only - See Multiple Emission Sources Section 2.2 B.3	15A NCAC 02D .1100
Toxic air pollutants	State enforceable only - See Multiple Emission Sources Section 2.2 B.4	15A NCAC 02Q .0711

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ESTF1, ESTF2, and ESCD1**) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \text{ (For process weights up to 30 tons per hour)}$$

Where: E = allowable emissions in pounds per hour
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. The Permittee shall maintain production records such that the process rates “P” in tons per hour, as specified by the formulas contained above can be derived, and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.
- d. No reporting is required for particulate emissions from these sources (**ID Nos. ESTF1, ESTF2, and ESCD1**).

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ESTF1 and ESTF2**) and control devices (**ID**

Nos. CDOX1 and CDOX2) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas and propane in these sources (**ID Nos. ESTF1 and ESTF2**) and control devices (**ID Nos. CDOX1 and CDOX2**).

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ESTF1, ESTF2, and ESCD1**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To assure compliance, once a day the Permittee shall observe the emission points of these sources (**ID Nos. ESTF1, ESTF2, and ESCD1**) for any visible emissions above normal. The daily observation must be made for each day of the calendar year period the sources are operating to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 E.3.a above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

- d. The Permittee shall establish and maintain a list (written or electronic format) of the styles by number and unique routing that, when processed through the tenter frames (**ID Nos. ESTF1 and ESTF2**), do not result in uncontrolled visible emissions above the opacity limit in Section 2.1 E.3.a above. Prior to adding any new or modified¹ style to this list, the Permittee shall demonstrate uncontrolled tenter frame emissions comply with the opacity limitation during style processing. To remain on this exemption list, beginning January 1 of each calendar year, each style must be re-evaluated and shown to be in compliance with the opacity limitation. All visible emissions observations shall be performed in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes after the tenter frame, processing the style, has operated without oxidizer control for a period of at least 15 minutes.
- e. The Permittee shall establish and maintain a list (written or electronic format) of the styles by number and unique routing that, when processed through the carbonizer/dryer (**ID No. ESCD1**), do not result in

¹ Any style previously observed with excess visible emissions, may only be placed on this list, if a documented change in style's characteristics has occurred **and** if the Permittee demonstrates compliance without emissions control.

uncontrolled visible emissions above the opacity limit in Section 2.1 E.3.a above. Prior to adding any new or modified⁸ style to this list, the Permittee shall demonstrate uncontrolled carbonizer/dryer emissions comply with the opacity limitation in during style processing. To remain on this exemption list, beginning January 1 of each calendar year, each style must be re-evaluated and shown to be in compliance with the opacity limitation. All visible emissions observations shall be performed in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes after the carbonizer/dryer, processing the style, has operated without oxidizer control for a period of at least 15 minutes.

- f. The Permittee shall record the date each style included on the list in Section 2.1 E.3.d and/or Section 2.1 E.3.e, above, is first run in each calendar year and shall record the style number, the evaluator's name, and the date, time, and the visible observation.
 - g. The Permittee shall control visible emissions from these sources (**ID Nos. ESTF1, ESTF2, and ESCD1**), using thermal oxidizer(s) (**ID Nos. CDOX1 and/or CDOX2**) operating at a temperature of at least 100 degrees Fahrenheit above the source drying temperature when processing:
 - i. A style through the tenter frame(s) which has not been included on the list established in Section 2.1 E.3.d above;
 - ii. A style through the carbonizer/dryer which has not been included on the list established in Section 2.1 E.3.e above;
 - iii. A style listed in Section 2.1 E.3.d and/or Section 2.1 E.3.e above, for which the Permittee has not completed the annual visible emissions evaluation within 72 hours of first processing the style during calendar year and continuing until the annual uncontrolled visible emissions compliance demonstration is complete;
 - iv. A style which has uncontrolled visible emissions in excess of the opacity limitation in Section 2.1 E.3.a above; and,
 - v. Except, no control is required when evaluations are performed to assess whether or not a style may be placed on a Section 2.1 E.3.d or Section 2.1 E.3.e list.
 - h. The Permittee shall monitor the operating temperature of the thermal oxidizer(s) prior to processing a style, which requires emissions control, through either tenter frame or through the carbonizer/dryer and the drying temperature of the tenter frame(s) and/or carbonizer/dryer. Each temperature shall be recorded in a logbook (written or electronic format). Each period when the temperatures are not monitored prior to processing a style and each period when the thermal oxidizer(s) is not at least 100 degrees Fahrenheit greater than the source drying temperature prior to style processing shall be considered uncontrolled. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if emissions from non-exempt styles are not controlled as specified above at least 97% of the required time specified in Section 2.1 E.3.g above.
 - i. The Permittee shall perform periodic inspections and maintenance of the thermal oxidizers as recommended by the manufacturer. As a minimum, the Permittee shall perform an annual internal inspection of the combustion chamber of each oxidizer to ensure structural integrity of the system. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the periodic inspections and maintenance are not performed.
 - j. The Permittee shall keep records of all monitoring and maintenance activities shall be recorded in a logbook (written or electronic format) on-site and made available to DAQ personnel upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.
- Reporting** [15A NCAC 02Q .0508(f)]
- k. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

F. Direct natural gas/propane-fired singer (ID No. ESSN1) with associated cyclone (ID No. CDSN1) and spray scrubber (ID No. CDSN2) installed in series

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10 \times P^{0.67}$ (For process weights ≤ 30 tons/hr) Where: E = allowable emissions in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Sulfur dioxide	See Multiple Emission Sources Section 2.2 A	15A NCAC 02Q .0317 (PSD Avoidance)
Hazardous air pollutants	See Multiple Emission Sources Section 2.2 B.2	15A NCAC 02Q .0317 (MACT Avoidance)

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from this source (**ID No. ESSN1**) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \text{ (For process weights up to 30 tons per hour)}$$

Where: E = allowable emissions in pounds per hour

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. The Permittee shall maintain production records such that the process rates "P" in tons per hour, as specified by the formulas contained above can be derived, and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.
- d. No reporting is required for particulate emissions from this source (**ID No. ESSN1**).

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from this source (**ID No. ESSN1**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas and propane in this source (**ID No. ESSN1**).

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. ESSN1**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source (**ID Nos. ESSN1**) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:

- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 F.3.a above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2.2 - Multiple Emission Source(s) Specific Limitations and Conditions

A. Coal-fired boiler (ID No. ESB1);

Two natural gas/No. 2 fuel oil/No. 2 (equivalent recycled) fuel oil/No. 5 fuel oil/No. 6 fuel oil/No. 4 (equivalent recycled) fuel oil-fired boilers (ID Nos. ESB4 and ESB5);

Two natural gas/propane-fired tenter frames (ID Nos. ESTF1 and ESTF2) with associated natural gas/propane-fired thermal oxidizers (ID Nos. CDOX1 and CDOX2); and

One natural gas/propane-fired singer (ID No. ESSN1)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	Less than 250 tons per year combined	15A NCAC 02Q .0317 (PSD Avoidance)

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS

for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. In order to avoid the applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, these sources (**ID Nos. ESB1, ESB4, ESB5, ESTF1, ESTF2, CDOX1, CDOX2, and ESSN1**) shall discharge into the atmosphere less than 250 tons of sulfur dioxide combined, per consecutive 12-month period.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.2 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The Permittee shall keep monthly records of fuel usage in a logbook (written or electronic format), as follows:
 - i. the total quantity (in million standard cubic feet) of natural gas and propane fired in the affected sources;
 - ii. the total quantity (in 1,000 gallons) of fuel oil fired in the affected sources;
 - iii. the total quantity (in tons) of coal fired in the affected sources;
 - iv. the fuel oil supplier certifications for any fuel oil fired in the affected sources, including the sulfur content of the fuel oil (in percent by weight); and
 - v. the sulfur content of the coal burned in the affected sources (in percent by weight).

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the fuel usage and sulfur contents are not created and retained as required above.
- d. The use of fuel oil in all combustion sources shall be limited such that sulfur dioxide emissions shall not exceed 250 tons for any consecutive 12-month period. Calculations shall be made monthly using the fuel quantities consumed for the last consecutive 12-month period and recorded in a logbook (written or electronic format), according to the following formula:

$$P \text{ (lbs SO}_2\text{)} = \frac{[X] \times [0.6 \text{ lbs SO}_2\text{]}}{\text{[million ft}^3\text{ gas]}} + \frac{[Y] \times [T] \times [38 \text{ lbs SO}_2\text{]}}{\text{[ton coal]}} + \frac{[Z] \times [157 \text{ lbs SO}_2\text{]} \times [S]}{\text{[1000 gallons fuel]}}$$

$$\text{Total tons of SO}_2 \text{ Emitted} = [P \text{ lbs of SO}_2] \times [1 \text{ ton SO}_2] / [2000 \text{ lbs SO}_2]$$

Where: P is the actual pounds of sulfur dioxide emitted

X is the millions of cubic feet of natural gas and propane used in sources **ESB4, ESB5, ESTF1, ESTF2, CDOX1, CDOX2, and ESSN1**

Y is the tons of coal used in ESB1

Z is the thousands of gallons of fuel oil used in **ESB4 and ESB5**

S is the percent sulfur in the fuel oil

T is the percent by weight of sulfur in the coal

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the sulfur dioxide emissions calculations records are not maintained or if the sulfur dioxide emissions exceed the limit given in Section 2.2 A.1.a above.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. the monthly sulfur dioxide emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months;
 - ii. the monthly quantities of natural gas, Propane, No. 5 fuel oil, No. fuel oil, and coal consumed for the previous 17 months; and
 - iii. the average sulfur content of the fuel oil and the coal.

B. Facility-wide affected sources

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous air pollutants	Less than 10 tons/year of any HAP and Less than 25 tons/year of any combination of HAPs	15A NCAC 02Q .0317 (MACT Avoidance)
Toxic air pollutants	State enforceable only Modeled emission rates	15A NCAC 02D .1100
Toxic air pollutants	State enforceable only Toxic Permit Emission Rates (TPERs)	15A NCAC 02Q .0711

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS

for 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

- a. In order to remain classified a minor source for hazardous air pollutants and avoid applicability of this regulation, facility-wide emissions of hazardous air pollutants shall be less than:
 - i. 10 tons per year of each hazardous air pollutant, and
 - ii. 25 tons per year of all hazardous air pollutants combined.

The Permittee shall be deemed in noncompliance with this condition and 15A NCAC 02D .1111 if the hazardous air pollutant emissions exceed these limits.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- b. To ensure compliance with the limits in Section 2.2 B.2.a above, the Permittee shall maintain the following monthly records:
 - i. the amount of the fuel fired in these sources (**ID Nos. ESB1, ESB4, ESB5, ESTF1, ESTF2, ESSN1, CDOX1, and CDOX2**) and the amount of hazardous air pollutants emitted, including hydrochloric acid emitted from the coal combustion. Hazardous air pollutant emissions shall be calculated based upon US EPA AP-42 emission factors and coal, fuel oil, natural gas, and propane consumption;
 - ii. the amount of hazardous air pollutants emitted from all materials containing hazardous air pollutants including dyes, coatings, and solvent-based cleaners used at the plant as follows:
 - A. quantity of individual hazardous air pollutants in pounds emitted by the facility each month and

for the 12-month period ending on that month; and

- B. quantity of all hazardous air pollutants in pounds emitted by the facility each month and for the 12-month period ending on that month.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not maintained.

- c. The Permittee shall keep a record of the applicability determination on-site at the facility for a period of five years after the determination, or until the facility becomes an affected facility. The determination must include the analysis demonstrating why the Permittee believes the facility is unaffected pursuant to 40 CFR 63.10(b)(3). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- d. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following records:
 - i. greatest quantity in pounds of an individual hazardous air pollutant emitted,
 - A. for each month during the semi-annual period, and
 - B. for each 12-month period ending on each month during the semi-annual period using a 12-month rolling total; and
 - ii. pounds of all hazardous air pollutants emitted,
 - A. for each month during the semi-annual period, and
 - B. for each 12-month period ending on each month during the semi-annual period using a 12-month rolling total.

STATE-ENFORCEABLE ONLY

2. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

- a. Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

Emission Source(s)	Toxic Air Pollutant	Emissions Limit (pounds/hour)
ESTF1 and ESTF2	Acetic acid	81.84 total
I-500	Acetic acid	1.72
I-600	Acetic acid	0.123
ESTF1 and ESTF2	Formaldehyde	3.672 total

- b. To ensure compliance with the limits above, the following minimum stack heights shall apply:

Emission Source(s)	Stack Height (meters)
ESTF1 and ESTF2	15.2
I-500	4.27
I-600	3.65

STATE-ENFORCEABLE ONLY

3. 15A NCAC 02Q .0711: TOXIC AIR POLLUTANT EMISSIONS LIMITATION REQUIREMENT

Pursuant to 15A NCAC 02Q .0711 “Emission Rates Requiring a Permit,” for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 02Q .0711. The facility shall be operated and maintained in such a manner that emissions of any listed TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 02Q .0711.

- a. A Permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.
- b. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 02D .1100 “Control of Toxic Air Pollutants”.
- c. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below.

Pollutant (CAS Number)	TPERs Limitations			
	Carcinogens (lbs/year)	Chronic Toxicants (lbs/day)	Acute Systemic Toxicants (lbs/hour)	Acute Irritants (lbs/hour)
Trichloroethylene (79-01-6)	4000			
Xylene (1330-20-7)		57		16.4

SECTION 3 - GENERAL CONDITIONS (version 5.3, 08/21/2018)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. Circumvention - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. Permit Modifications

1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. Changes Not Requiring Permit Modifications

1. Reporting Requirements
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
 - a. changes in the information submitted in the application;
 - b. changes that modify equipment or processes; or
 - c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
 - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
 - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
 - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]

To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

- I.A **Reporting Requirements for Excess Emissions and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]
“**Excess Emissions**” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. (*Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.*)

“**Deviations**” - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
 - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B **Other Requirements under 15A NCAC 02D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **Emergency Provisions** [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and

that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (1)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.

3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. Prevention of Accidental Releases - Section 112(r) [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) – FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. Title IV Allowances [15A NCAC 02Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. Air Pollution Emergency Episode [15A NCAC 02D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. Registration of Air Pollution Sources [15A NCAC 02D .0202]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. Ambient Air Quality Standards [15A NCAC 02D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. General Emissions Testing and Reporting Requirements [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
 - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:

- i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
- b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. Reopening for Cause [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. **Specific Permit Modifications** [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound